

REMARKS

Favorable reconsideration and allowance of the claims of the present application are respectfully requested.

Before addressing the specific grounds of rejection raised in the present Office Action, applicants have amended Claims 1, 3, 4, 11, 12 and have cancelled Claims 2 and 10. With respect to Claim 1, applicants have amended the claim to positively recite that the inhibitor is a toxicant. Support for this amendment to Claim 1 is found at Page 7, lines 18-26 of the subject specification as well as Claim 2, which claim was cancelled in this amendment. Additionally, applicants have amended Claim 1 to positively recite that at least one of the binding partners is immobilized to a substrate comprising glass, polystyrene, polymethacrylate, cellulose, nylon, polyvinylchloride or polypropylene. Support for this amendment to Claim 1 is found at Page 9, lines 14-20 of the subject specification.

The remaining amendments to Claims 3, 4, 11 and 12 are minor and are self-explanatory.

Since the above amendments to the claims do not introduce any new matter into the subject specification, applicants respectfully request consideration and entry thereof.

Claims 1-10, 12 and 27 stand rejected under 35 U.S.C. § 102(a) as allegedly anticipated by Kekic, et al., "Electrophoretic monitoring of pollutants: Effect of cations and organic compounds on protein interactions monitored by native electrophoresis", *Electrophoresis*, 20:2053-2058 (1999). Claims 1, 4, 5, 6, 7, and 11 stand rejected under 35 U.S.C. § 102(e) as allegedly anticipated by U.S. Patent No. 6,207,391 to Wu, et al. ("Wu, et al.").

Concerning the anticipation rejections, it is axiomatic that anticipation under § 102 requires that the prior art reference disclose each and every element of the claim to which it is applied. In re King, 801 F.2d, 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1996). Thus, there must be no differences between the subject matter of the claim and the disclosure of the prior art reference. Stated another way, the reference must contain within its four corners adequate direction to practice the invention as claimed. The corollary of the rule is equally applicable: Absence from the applied reference of any claimed element negates anticipation. Kloster Speedsteel AB v. Crucible Inc., 793 F.2d 1565, 1571, 230 USPQ 81, 84 (Fed. Cir. 1986).

Applicants respectfully submit that the claims of the present application are not anticipated by the disclosure of Kekic, et al. since the applied reference does not disclose applicants' claimed method for detecting a toxicant which includes the use of at least one binding partner that is immobilized to a substrate comprising glass, polystyrene, polymethacrylate, cellulose, nylon, polyvinylchloride or polypropylene. The claimed solid supports recited in amended Claim 1 are portable and inexpensive solid supports on which the method of the present invention can be performed. The need for inexpensive, specific and portable assays for environmental toxicant detection is mentioned at Page 2, lines 1-6 of the subject specification.

Kekic, et al. describe how the interaction between actin and its protein ligands can be used to evaluate the presence of certain metal ions (e.g., Cd, Cu, Hg, and Zn) and organic compounds such as 2,4-dioxin and Pricloram, which are common components of environmental pollution. In the Kekic, et al. disclosure, the assay detects the high-affinity of actin to actin-binding proteins (ABPs), cofilin or DNaseI. The complexes were analyzed by using polyacrylamide gel electrophoresis.

Applicants observe that in the claimed method the solid support to which one of the binding partners is immobilized to comprises glass, polystyrene, polymethacrylate, cellulose, nylon, polyvinylchloride or polypropylene. The claimed list of solid supports does not include a polyacrylamide gel solid support, such as is disclosed in Kekic, et al. The polyacrylamide gel solid support utilized in Kekic, et al. is relatively expensive, requires specialized skills to prepare and, in conjunction with the required apparatus for use and analysis is not portable.

Based on the above amendments and remarks, the anticipation rejection based on the Kekic, et al. disclosure has been obviated. Reconsideration and withdrawal of the rejection to Claims 1-10, 12 and 27 under 35 U.S.C. § 102(a) citing Kekic, et al. are respectfully requested.

Wu, et al. do not anticipate the claimed method since the applied reference does not teach a method for the identification of a toxicant. The disclosure of Wu, et al. is directed to a method for identifying agents that modulate the interaction of two specific polypeptides (specifically, STAT4 and STAT6) with their respective cellular receptors.

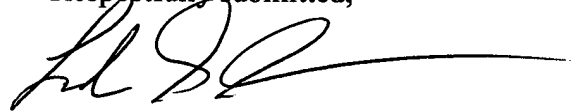
Nowhere in the document of Wu, et al. is it disclosed that the putative inhibitors of STAT4 or STAT6 are environmental toxicants. Furthermore, there is no suggestion that an assay based on the interaction of STAT4 or STAT6 with their respective cellular receptors would have any utility as a method for detecting an environmental toxicant. In Wu, et al., the disclosed purpose of screening for agents that modulate the interaction of STAT4 or STAT6 with their respective receptors (binding partners), is to identify therapeutic compounds. Applicants respectfully submit that compounds such as this are distinct from environmental toxicants, which could arguably be considered diametrically opposed to a therapeutic compound.

Accordingly, applicants respectfully submit that the anticipation rejection based on the disclosure of Wu, et al. has been obviated. Reconsideration and withdrawal of the rejection to Claims 1, 4, 5, 6, 7 and 11 under 35 U.S.C. § 102(e) citing Wu, et al. are respectfully requested.

The foregoing remarks clearly demonstrate that the applied references do not teach each and every aspect of the claimed invention, as required by King and Kloster Speedsteel; therefore the claims of the present application are not anticipated by the disclosures of Kekic, et al. and Wu, et al. Applicants respectfully submit that the instant § 102 rejections have been obviated and withdrawal thereof is respectfully requested.

Thus, in view of the foregoing amendments and remarks, it is firmly believed that the present case is in condition for allowance, which action is earnestly solicited.

Respectfully submitted,



Leslie S. Szivos, Ph.D.
Registration No. 39,394

SCULLY, SCOTT, MURPHY & PRESSER
400 Garden City Plaza
Garden City, New York 11530
(516) 742-4343

LSS/sf